one party fails to make the required response. It creates a wrong impression to speak of land being 'vested' in a man if all he has (independently of some woman) is a cleared patch of ground on which nothing grows; nor is the woman in a better position as she cannot (independently) bring any crop to maturity as she needs the man's garden magic. As we shall see below, 'rights' in all Orokaiva land transactions are limited in some way similar to this.

3. *Land Transactions between Men and Spirits*

A second basic transaction mediated by the land is that between the soul of a recently deceased person and a new-born infant. The Orokaiva believe in transmigration of souls. But this transmigration occurs through the mediation of the piece of land where the spirit of the dead person has taken up special residence. This is usually the garden he or she was cultivating at the time of death. It is a fact of Orokaiva life that old people do not stop gardening as long as they have any strength left in their bodies. Waddell's study of time allocation in Sivepe showed that after the age of fifty-five, time spent on productive subsistence activity, especially in the garden, declined only slightly, whereas non-productive activity (e.g. social obligations, dealings with external agencies) declined very sharply (1968: 104). Old people devote their reduced energies almost exclusively to their gardens, grow progressively closer to their gardens and away from the social network, until finally, after death, their spirit becomes still more closely attached to the land. Their souls re-enter association with the village through transmigration.

Crops from the garden cultivated by the deceased may not be eaten by any member of the deceased's lineage. They are harvested by the heir and given away by him to persons outside the lineage. No *bere* are taken from these crops. After a suitable period of fallow, the garden is replanted, but even then the land is not thought to be free of the deceased's spirit. Very often the son or brother of the deceased plants the garden and uses the produce to give a feast. It is thought that the spirit presents no danger to food grown in that plot afterwards.

Transmigration is affected by a ritual performed shortly after the birth of an infant. The parents take the child to the land where the spirit of the deceased is believed to reside. They seek the spirit by placing leaves of a fragrant plant called *mo* in a creek which runs through the land. When the spirit is thought to have entered the leaves, the parents address it thus: 'You are dead now. We shall look after the land and we shall look after the baby so it will become big and strong. Then this child will look after the land.' The wife, in preparation for this rite, has brought the baby to the garden in a string bag, and has also brought a stick. When she arrives in the garden, she places the stick in the ground and hangs the baby in its string bag from the stick. After the ritual by the water, she drops some of the leaves by the stick, then takes the baby, the bag and the rest of the leaves and returns home with her husband. The custom is for the husband to say at night: 'I hear the baby crying.' He is expected to go back to the garden and talk to the baby that is believed to be in the stick, telling it that the parents will now look after it and there is no need to cry. He should then take the stick, with the 'baby' inside it, to his home.

The significance of this ritual became a little clearer to me through the case of

man-hours, to be a costly failure.[1] During February and March 1964, some 361 man-hours were spent in cleaning the garden preparatory to planting. The major task of clearing the area had been done the previous year. The immediate cause of the scheme's failure was friction between villagers over the crops to be planted in the garden - the councillor insisted on coffee, cocoa and rubber, while most of the others favoured coffee only. Regardless of this aspect, the episode illustrates some of the problems of communication between the external agencies and the indigenous people.

Preparations in the latter part of 1964 to move the village to the new site were precipitated in part by the belief that, if located near the end of the new and improved access road (the jeep road from Awala running through Sivepe having fallen into disuse during 1964), the sale of their produce would be made more easy.[2] However, because of the uncertainty surrounding the move, several households had by the end of the year stated their intention of remaining in the existing village.

The complexity of the cash cropping situation in Sivepe precludes drawing a clear distinction between cash croppers and non-cash croppers. As Table 4:4 shows, there are various forms and degrees of involvement in commercial agriculture and every household participates in some way. Distinctions drawn on the basis of individual holdings can be most misleading. For example, the head of household 15 is an active cash cropper, although he has no commercial trees of his own, whereas another man, with 77 coffee trees, did not work them at all during 1964. While older people tend merely to assist primary kin and appear to receive little direct payment, others are involved in various ways.

(d) Monetary assets

Individual holdings of money and other property reflect the use of past income and illustrate the extent of investment and changes in material culture.

The monetary assets of 11 households at the end of the survey amounted to $208.60 (see Table 4:5), 26.9 per cent ($56.10) in cash

[1] It is assumed that communal clearing and subsequent subdivision into individual holdings had been recommended. In the Sivepe case, the councillor had apparently failed to grasp that subdivision should follow clearing. Two householders claim to have been prevented from establishing individual coffee plantings by him because of this misunderstanding.

[2] See pp.34 and 37.A According to a local planter, the Army Engineers (engaged at the time on public works in the Northern District) promised to provide a weekly truck to Popondetta market if the people built a new road.

[TEXT CONTINUED ON PAGE 47]

A.[See Category 491, pp. 34-37--Analyst]

512 [75] [164]

Systematic data gathered on sickness refers primarily to activities of a preventative nature - the periodic infant welfare clinics and, in one week during period III, a TB survey involving X-rays and Mantoux tests accounted for 9.1 hours per man. However, in the survey as a whole, a mean of only 0.9 hours per man-week was incurred by sickness.

Activities of a minor nature account for an average of 0.8 hours per man-week and include sport, services rendered to the researcher and, during period III, the expenditure of 0.7 hours per man-week in the preparation of the new village site. By the end of the survey much of this site had been cleared and a number of individuals were planting 'catch crops' of taro and bananas.

461 433

Within the total Sivepe economy 'productive' activities account for 29.8 hours expended per man-week, or 73 per cent of activity time. However, the productive component within the subsistence and external sectors differs greatly, being 89 per cent of activity time in the former but only 30 per cent in the latter. The absolute insignificance of cash-producing activities should be viewed in this context, of the relatively unproductive nature of Orokaiva involvement in the external economy.

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The organisation of work by households

Table 6:5 reveals substantial variations in both the volume and patterns of activity between individual households which, while they enable a distinction to be drawn between cash cropper and non-cash cropper, are largely explicable in terms of the structure and composition of the households themselves.

With a mean activity-week of 40.6 hours recorded, the individual household range is 29.4 to 65.3 hours. However, household 12, in which the 65.3 hours per man-week are expended, is somewhat aberrant in that it consists of a widowed woman with six children, the eldest of whom is a full-time nurse at the infant welfare clinic at Sasembata, to which job she devoted an average of 53.7 hours per week. The work accounts for almost half the time expended per man-week by the whole household. This, and the absence of an adult male, seriously undermined their ability to carry out essential subsistence tasks - so they only spent 11.1 hours per man-week on clearing, subsistence gardening and other subsistence food production compared with the sample mean of 19.4 hours. Significantly, by the end of period I the household had left the village, the mother to re-marry and the eldest daughter to reside on the mission station. By eliminating household 12 the range is reduced to 29.4 to 50.4 hours per man-week.

[887]

At the lower end of the range are households incorporating the oldest people in the village. While probably less productive in their labour, these people are deprived of a much higher proportion

[TEXT CONTINUED ON PAGE 96]

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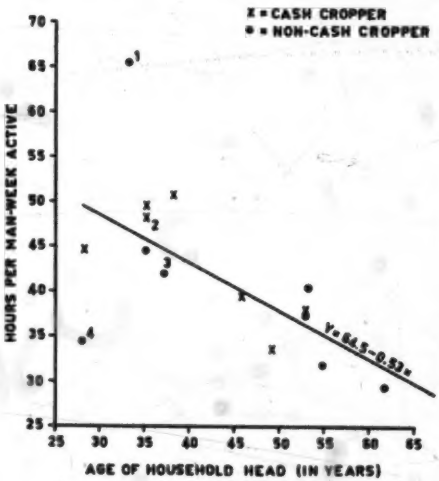
SIVEPE FIGURE 6:6

RELATION BETWEEN ACTIVITY TIME, AGE AND CASH CROPPING STATUS, SHOWING THE LINE OF AVERAGE RELATIONSHIP BETWEEN TIME AND AGE



ANOMALOUS HOUSEHOLDERS:
1 Divorced woman, eldest daughter in full time employment
2 Divorced woman
3 Recent arrival, temporarily linked by marriage
4 Temporarily resident only
1 and 3 left the village part-way through the survey

of available labour time through sickness.[1] All seven households headed by people in the 45+ age group are characterised by a below average activity week. Only one other household is below average (4), a couple who were resident for only 12.3 man-weeks, before

[887]

[1] See Table 6:3. A

A, [See Category 164, p. 79--Analyst]

517 [177] 518

competing guitar groups, parties also provide a means of making contact with the opposite sex.

512 [177]

Apart from attendance at church services, meetings of all kinds attract the young men and account for 32 per cent of the time spent with the external agencies. Rodney Gill also frequently attends Sasembata clinic, undoubtedly being attracted by the young people working there. Finally, he spends the very substantial amount of 6.4 hours on other activities, 44 per cent on recreations such as football, and 47 per cent in rendering assistance of various kinds to the researcher.

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In general, while Rodney Gill has an above average activity week, the way in which he allocates this time manifests a general lack of concern with or involvement in the village economy. His interest is largely confined to pursuits which have an important recreational value or where his participation is passive, as in church services or meetings. Such behaviour is not untypical of the young unmarried men and while it partly reflects their not yet having assumed adult responsibilities it is also associated with a sense of malaise with village life.

887 512

Umbahapa. Umbahapa is over 55 years of age and the oldest resident of Sivepe. Apart from age, his activities are further restricted by being a widower and partially lame in one leg. Although living alone and cultivating his own gardens, he depends to a great extent on a married daughter resident next door, particularly for his meals and for harvesting produce from his gardens; a younger sister, Linton's mother, also helps him. Without cash crops, and his non-traditional experience restricted to acting as a war-time carrier between Kokoda and the coast, Umbahapa is of necessity a member of the 'old' generation. He has no cash income and does not participate in any cash-producing activities.

Umbahapa's activity week comprises only 29.4 hours, his efforts being directed almost exclusively to the subsistence sector. Disregarding household tasks (since his daughter prepares most of his food for him), his productive efforts are possibly adequate to meet his food requirements, although none of his gardens were in production when surveyed. The large amount of time expended on clearing (6.3 hours) is probably explained by Umbahapa's labour being less productive than a younger person's. The total of 12.5 hours spent on subsistence gardening approximates to the sample mean although the distribution of this

887 512 time is somewhat different, greater emphasis being laid on the planting of food crops, suggesting that their harvesting is primarily the concern of his daughter. Although he obtained considerable assistance in rebuilding his house during the survey, Umbahapa spent 2.9 hours per week on construction but all other productive tasks are of little significance.

Social obligations are no longer of much concern to Umbahapa, restricted as he is by his bad leg and increasing age. They account for only 1.9 hours a week and among them mourning predominates. These apart, he is a frequent church attender and periodically visits the clinic in connection with his leg. However, Umbahapa's behaviour shows he is no longer a fully active member of society; his concern is with meeting his subsistence requirements and whether he successfully achieves these on the basis of his efforts alone is questionable. Umbahapa is very dependent on the 'sympathy group' since it is his kinsmen and the community as a whole who have assumed responsibility for his well-being. [888]

further such lucrative young females. Of the six, two were Sivepe women while the other four were women from other villages residing virilocally. A great many other families did not derive income in this way. Some of these, however, had daughters living in other villages, and their husbands too were sources of institutionalised gifts.

Though Waddell showed that the loss of adult male workers through migration is already serious (37.8% in Sivepe and 25% in Inonda), the point had not been reached when the loss of manpower led to a decline in the production from garden lands. Waddell may, however, be right in ascribing the increasing consumption of the inferior Xantosoma taro (see page 35 above) to the deflection of the adult male labour force which had to support old people whose vigour had declined. The older men did not stop work abruptly at a certain age; they would continue to go to their gardens, but the areas cultivated would become smaller; their children or young affines would help them. If an old man became widowed his daughter or daughter-in-law would cook food for him; in the case of a widow, uncooked food might be given, but most widows tend to live in a house where there are male relatives, the only two exceptions in the sample being the two widows who stayed in the old village of Sivepe. There are also activities which are a specialty of the old: they tend to be the village artists and also the village sorcerers. When we wanted to buy artifacts, it was the old men who made the ornaments, the old women who made the best pots and painted the best bark-cloth. Similarly, the most active curers in the village were two old men and one old woman.

I saw no evidence of polygamy currently practised. Marriages were always consecrated at the time the couple was baptised. Several people had at one time been divorced, but this was prior to the time of baptism.

In Inonda, as I wrote earlier, no absent husbands sent money home. The only woman at Inonda whose husband was away from the village was in jail, after breaking into a trade store with a hammer belonging to another man from Inonda. On the other hand, one man earned a living as a government driver, thus becoming more or less removed from the work in his subsistence and coffee gardens. Some other men took over his work, in return for appropriate counter gifts and services. In both villages, therefore, a pattern existed of outside earnings derived by a limited number of people whose garden work was taken over by other members of the village labour pool, while the money earnings were in one way or another widely shared among villagers.

Section 2: Division of Labour

The division of labour was the special subject of a study carried out in Sivepe by my predecessor, Mr. Waddell. As he has been

A [See Cat. 116--Analyst]

433 of shifting cultivators actually do shift their villages to save time
461 as previous investigators have believed: perhaps, we need to look
241 for entirely different motivations.

The question is an interesting one, but Sivepe does not
114 provide a clinching counter-instance. Mr. Waddell's sample was taken
entirely from the Jegase and Timumu clans, while he did not collect
[484] data on travelling time from the Seho clan. Now it is the latter clan
which owns most of the land around New Sivepe, so that their travelling
[423] time is (at least for most families) substantially reduced by the shift.
Furthermore, five of the Jegase households (some of which were formerly
called Timumu) now have gardens very close to New Sivepa. The main
sufferers appear to be two families who migrated from Binduta recently,
whose land is mainly close to Binduta, and against whom feeling has
been building up over the last few years. Mr. Waddell is right,
however, in stressing that the major reason for the shift (as given by
informants) was the closeness of the new village to the road and the
mission station. As such the basis of the shift was practical and
ideological but I believe that overall travelling time was reduced
if both Seho and Jegase clans are taken into account. Certainly the
new village is very close to the land of most of the Sorovi people
who settled in Sivepe in 1966.

The second suggestion made by Waddell is that travelling time
could be reduced, and thus working efficiency increased by land tenure
conversion. He has in mind, I think, the arrangement already found
in Papuan returned servicemen's settlements established by the government
where each individual family is settled on its own 20-acre block and
grows cocoa and subsistence crops there. Conceivably, when tenure
conversion is completed, the Orokaiva might be encouraged to live on
individual farm holdings rather than in compact villages. Some planners
in the Territory are actually playing with this idea. It has many
drawbacks, however: distance from roads, from schools, collapse of
social control institutions, abandonment of useful social development
projects such as the provision of good water supplies in the resettle-
ment villages.

Comparison with Inonda suggests that as the proportion of adult
males lost through migration from Inonda is smaller, and none of these
males have left dependents in the village, and furthermore, as the
amount of cash cropping work is relatively smaller, the Inonda people
are less pressed for time than those of Sivepe. This is borne out by
the fact that they are away from the village more frequently as
Waddell's statistics show.

An interesting discovery made by Waddell concerns the time
114 allocation of the elderly. He shows that in adulthood the amount of
887 productive work done decreases with age, as does also the amount of
time spent on productive work, but the amount of time devoted to social
activities and contacts outside the village declines even more steeply
after middle age. The Orokaiva has no leisurely old age. Unlike the
[888] Polynesian elder he does not become a sage, remote from economic

affairs, but gives all his declining energies to his garden, keeping as close as possible to the productive level of his better years. He draws closer and closer to his garden where his spirit will dwell after death. Apart from the garden, he becomes remote from most things; his days of household duties, hunting, fishing, building are over. He will, however, make dancing ornaments and weapons and headdresses which again lie close to the spirit realm. (I have quoted Waddell's statistical evidence for these tendencies in Table 18.)[A]

How did culture change influence the division of labour between the sexes? For the traditional productive activities, there has probably been hardly any change. I have quoted a table of exclusively masculine and feminine activities collected by Williams in 1923, and hitherto unpublished (Table 19).[B] Certain tasks of importance were omitted from this list, which may explain why Williams did not publish it. Sago making was probably always a male activity; so was the use of the digging stick preparatory to planting taro and yam. The harvesting of taro was probably always a specifically feminine task; there is clearly a taboo on men against harvesting taro. Even bachelors never do it but must leave it to his mother, his sister or his brother's wife. If men did it, I was told, they would not "know how" and they would never manage to eke out the crop until the next harvest. This did not apply to the harvesting of other crops. When Williams classified "planting" as a feminine task, he was probably thinking of the actual placing of the cuttings in the ground, though I have seen men as well as women do this.

In the Orokaiva view both man and woman are repositories of capacities and resources specific to themselves; the relationship between man and woman is the giving of exchange (mine ari) of the contributions of each. Man views woman as an equal exchange partner and this equality is real even though the care over legal and political matters is a distinctively masculine contribution. In the new activities introduced since European contact the same balance is preserved. Some new duties (e.g., the washing of clothes) were added to the specifically feminine preserve, church work and the purchasing of goods became a predominantly masculine preserve (as is attested by Waddell's statistics). The harvesting of rubber, taught exclusively to men on the plantations, became an exclusively male activity. On the other hand, the bulk of cash producing activities (working for pay, maintaining, harvesting and processing of coffee) were shared.

One interesting observation made by Waddell and confirmed by me is that most marketing of subsistence crops is done by the women whereas marketing of coffee is done by the men. The handling of harvested crops is normally a woman's prerogative. These are normally carried in large string bags which only married women can own and hang over their heads. While the casual European observer supposes that the women carrying these large bags are reduced to the status of beasts of burden, these bags signify the women's exlusive power over the crop; the fuller they are, the prouder the women are of them. Thus, only

A,B [See Cat. 116, pp. 225, 226, respectively--Analyst]